

# **Appendix A**

## **SECTION 404(b)(1) EVALUATION REPORT**

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## **SECTION 404 (b)(1) EVALUATION REPORT**

### **CENTRAL AND SOUTHERN FLORIDA STUDY MODIFIED WATERS DELIVERY TO THE EVERGLADES NATIONAL PARK**

#### **PROPOSED IMPROVEMENTS TO THE TAMIA MI TRAIL DADE COUNTY, FLORIDA**

## **1.0 PROJECT DESCRIPTION**

### **1.1 LOCATION**

The proposed work will be performed in the western-central portion of Miami-Dade County, Florida (Figure 1). The potentially impacted local areas flank the south side of the existing U.S. Highway 41 commonly called the Tamiami (Tampa to Miami) Trail. The Tamiami Trail, the L-29 Canal, and particularly the L-29 levee on the north side of the canal, form the southern boundary of the South Florida Water Management District's (SFWMD) Water Conservation Area 3B (WCA-3B). The south side of the project area is bounded by the Everglades National Park (ENP).

The limits of the proposed project begin slightly more than one mile west of the intersection of Krome Avenue and Tamiami Trail and extend approximately 10.7 miles to the west. The L-29 Canal, also known as the Tamiami Canal, runs along the north side of the Tamiami Trail through this area. The project limits are more definitively marked at each end by two water-control structures across the canal, S-334 on the east and S-333 on the west.

### **1.2 DESCRIPTION**

#### **1.2.1 Existing Conditions**

Under the current authorized and approved Modified Waters Delivery (MWD) Plan, water would be transferred from WCA-3A to WCA-3B by constructing three new water control structures at Levee L-67A and three new water control structures at L-67C. Water would be passed from WCA-3B through S-355A and S-355B to the L-29 Canal and through the existing culvert system under the Tamiami Trail into Northeast Shark River Slough (NESS) of ENP. When the General Design Memorandum (GDM) was completed in 1992, it was believed that existing culverts under the roadway would be adequate to convey the flow of water. Subsequent hydrological analyses, however, revealed that the head height in the L-29 Canal required for the culverts to convey the increased water could adversely affect the structure of Tamiami Trail and overtop the highway under certain conditions.

A final general Re-evaluation Report and Second Supplemental Environmental Impact Assessment (RGRR/SEIS) was prepared to analyze alternatives for re-designing Tamiami Trail so that increased MWD water flows could be conveyed south into the park without encroaching upon the sub-grade or overtopping the road. The document recommended a raised road profile with three miles of bridges. An ROD selecting this alternative was signed on January 25, 2006 on condition that real estate rights required for the Selected Plan be evaluated in a revised real estate supplement.

A Third Supplemental Environmental Impact Statement was prepared to communicate engineering and construction designs that have been refined by the USACE since completion of the RGRR/SEIS, and to evaluate real estate interests to be acquired on the south side of Tamiami Trail. Real estate interests include those needed for bridging and road-raising of Tamiami Trail, as described in the 2005 RGRR/SEIS, and for induced flooding associated with the overall MWD project.

### **1.2.2 Proposed Project**

The project proposed for construction is the Recommended Plan of the 2005 RGRR/SEIS. Bridge and highway dimensions, locations, and configurations would be retained (Figure 1). The proposed project would consist of constructing two bridges and reconstructing the highway to raise the crown elevation.

A two-mile bridge in the western portion of the project area and a one-mile bridge in the eastern portion of the project area would be constructed. The western two-mile bridge would actually be a conveyance of two individual bridges. A sloped bridge is required to collect runoff for treatment; to account for the necessary slope the bridge would reach ground level in the approximate center. At this location, the access road to Lincoln Financial Media would intersect the highway.

The plan would create hydraulic conveyance openings through Tamiami Trail by removing up to three miles (cumulative) of the existing highway, embankment, and associated culverts (Figure 4). Bridges would be constructed over each opening to replace the removed section of highway. The eastern bridge would start approximately one mile west of S-334 and proceed west approximately one mile, ending approximately 3,000 ft east of Radio One. The western bridge would start approximately 1,200 ft west of the S-12 Telemetry Tower and proceed west approximately two miles, ending approximately 2,640 ft east of the Osceola Camp.

The western bridges would result in the removal of the S-5, S-7, and S-9 culvert sets (a total of nine culverts). The eastern one-mile bridge span would result in the removal of the S-16 and S-17 culvert sets (six culverts). Construction of the bridges and bridge approaches would reduce the number of culverts sets from 19 (55 individual culverts) to 14 (40 individual culverts). The remaining culverts would require lengthening to extend beyond the widened roadway.

The crown elevation of the unbridged portions of the roadway would be raised to approximately 12.3 ft NGVD. In meeting with current FDOT standards for roadway geometry, the raised

profile of the roadway would require a wider roadbed than currently exists and a wider embankment on the southern edge of the road to stabilize side slopes. The reconstructed roadway would consist of two 12-foot-wide travel lanes. On each side of the roadway would be a 10-foot-wide shoulder, five feet of which would be paved. Guardrails would be located at the outer edges of the shoulders.

The project has been refined since completion of the 2005 RGRR/SEIS. The refinements include more specific construction details, as well as additional information and evaluations of real estate interests to be acquired on the south side of Tamiami Trail. Real estate interests include those needed for highway and bridge construction and for induced flooding associated with the MWD project.

The proposed project includes features not considered in the 2005 RGRR/SEIS. The first is the possible installation of culvert maintenance/flow equalization swales placed at each of the 15 sets of culverts that would remain after construction of the bridges. These swales would be 30 feet wide and extend up to 500 feet to either side of each culvert set. All vegetation would be removed, and the unconsolidated material (e.g., peat) above the rock would be excavated, creating a swale with a depth approximately two feet lower than the surrounding area.

The SFWMD has determined that the swales are needed to provide increased flow equalization; they would also assist in maintaining flows through the culverts by inhibiting the build-up of vegetation in front of the culverts. The USACE has concurred that the swales would be beneficial. The decision on whether to install the swales lies with ENP, and discussions and evaluations are ongoing.

The second feature involves the possible acquisition of an additional five feet of right-of-way on the south side of Tamiami Trail to comply with FDOT safety requirements. The proposed swales south of the highway meet the FDOT definition of canals. According to the FDOT Plans Preparation Manual, Volume 1, for rural highways with design speeds of 50mph or greater that parallel canals, the distance from the travel lane to the top of the canal side slope must be no less than 60 feet. If it is not possible to meet that criterion, a guardrail must be installed five feet from the canal side slope. ENP may request that the USACE solicit a variance of the five-foot distance requirement from FDOT and allow the guardrail to be constructed at the edge of the Tamiami Trail highway embankment, which is also the top of the canal side slope.

A third feature is a 40-foot-wide construction easement along the southern side of each of the bridges. Vegetation would be removed from the easements to facilitate mobility and operation of cranes and other heavy equipment required to construct the bridges. Details of this feature are currently being coordinated with ENP.

**No-Action Alternative.** Interests in all lands outside the existing Tamiami Trail right-of-way required for construction would be acquired by the ENP. Information on exactly what property would be required for acquisition was insufficient at the time of preparation of the 2005 RGRR/SEIS, but it was assumed that businesses would lose parking area. Induced flooding from increased MWD flows was not considered an issue in the 2005 RGRR/SEIS.

The 2005 RGRR/SEIS assumed that the NPS would acquire the necessary real estate interests in private parcels of land adjacent to the south side of Tamiami Trail before the initiation of construction of the Tamiami Trail project and before initiation of ecosystem restoration water flows directed south into ENP under the Combined Structural and Operational Plan (CSOP). However, because the NPS must complete its General Management Plan (scheduled for completion in 2009) before it can proceed with real estate acquisitions, it is unable to meet the schedule for Tamiami Trail construction.

However, postponement of the acquisition of real estate interests would enable the airboat touring businesses on the southern side of the highway to remain open for at least two more years. Additionally, postponement would provide ENP with the opportunity to make a decision on retaining the airboat touring businesses as concessions within the ENP.

The No-Action Alternative would postpone the overall Everglades restoration effort by at least two years.

**Tentatively Selected Plan.** The 2005 RGRR/SEIS addressed the USACE need to acquire a real estate interest in portions of the private properties that would lie within the construction footprint of the reconstructed road and bridges and the disposition of the utilities within the road right-of-way. Subsequent to the completion of the 2005 RGRR/SEIS, the USACE completed a detailed land survey of the project corridor, and the engineering designs of the project have proceeded. These advancements have allowed the USACE to complete a more accurate determination of real estate needs than was possible in the 2005 RGRR/SEIS.

The Tentatively Selected Plan (TSP) is for the Corps to proceed with acquisition of all real estate interests, which is scheduled to begin in 2007, including that needed for the construction footprint and that needed to mitigate flooding impacts.

### **1.2.3 Affected Wetlands**

**No-Action Alternative.** To determine the number of acres and wetlands affected by the project, Geographic Information Systems (GIS) technology compared the construction footprint of the Recommended Plan to the Florida Land Use, Cover, and Forms Classification System (FLUCCS) database (FDOT, 1999). FLUCCS codes used for the analysis were modified by the SFWMD in 2002. Table 1 shows the land uses, number of acres, and ownership of land impacted by the Recommended Plan.

Implementing the project would involve a loss of 66.25 acres of wetlands (Table 1). Removal of the existing highway embankment would allow the restoration of 25.31 acres of wetlands. Therefore, construction of the project would result in a net loss of 40.94 acres of wetlands.

**Table 1. Land Use Impacts of the Proposed Project**

| <i>Land Use Description</i>                              | <i>ENP<br/>Property</i> | <i>SFWMD<br/>Property</i> | <i>Private<br/>Property</i> | <i>Total<br/>Acres</i> |
|--|-------------------------|---------------------------|-----------------------------|------------------------|
| <b>Wetlands</b>  |                         |                           |                             |                        |
| Wetlands: Mixed Shrubs                                   | 28.94                   | 3.05                      | 1.14                        | 33.13                  |
| Wetlands: Freshwater Marshes—<br>Graminoid Prairie-Marsh | 19.59                   | 2.84                      | 1.00                        | 23.43                  |
| Wetlands: Freshwater Marshes—<br>Sawgrass                | 8.17                    | 0.72                      | 0.80                        | 9.68                   |
| <b>SubTotal Wetlands:</b>                                | <b>56.70</b>            | <b>6.61</b>               | <b>2.94</b>                 | <b>66.25</b>           |
| <b>Other Land Uses</b>                                   |                         |                           |                             |                        |
| Urban and Built-up: Commercial and<br>Services           | 0.23                    | 0.26                      | 1.25                        | 1.74                   |
| Natural River or Stream                                  | 0.00                    | 0.00                      | 0.30                        | 0.30                   |
| Channelized Waterways, Canals                            | 0.00                    | 0.00                      | 0.00                        | 0.00                   |
| Communication Utilities                                  | 0.53                    | 0.00                      | 0.00                        | 0.53                   |
| <b>SubTotal Other Land Uses::</b>                        | <b>0.76</b>             | <b>0.26</b>               | <b>1.54</b>                 | <b>2.57</b>            |
| <b>Total Acres Impacted by Project:</b>                  | <b>57.46</b>            | <b>6.87</b>               | <b>4.48</b>                 | <b>68.82</b>           |

Sources: South Florida Water Management District, USACE

These wetland impacts differ from those estimated in the 2005 RGRR for Tamiami Trail. The RGRR estimated that the Recommended Plan would involve a permanent loss of approximately 21.9 acres of wetlands, which would be incorporated into highway right-of-way. An additional 17.1 acres of vegetated wetlands was expected to be lost under the bridges due to shading, for a total vegetated wetland loss of approximately 39 acres.

Since then, engineering and construction designs for the project have been refined and include considerations for other aspects of construction that would fill or otherwise impact wetlands. Project features that could affect wetlands include: a possible five feet of ROW added to the top of the canal side slope to comply with FDOT highway safety standards; possible culvert maintenance/flow equalization swales added to the south side of existing culverts to reduce velocities in the receiving marsh; land cleared adjacent to the bridges to facilitate bridge construction; and the raising and widening of access roads to Radio One and Lincoln Financial Media for possible flooding associated with the MWD project. Table 2 shows the land impacts of these project features. Table 6 shows the impacts of project features on land owned by ENP.

Despite these impacts, the additional bridge conveyance and water distribution associated with this project would enable the restoration of approximately 109,000 acres of wetlands of NESS within ENP. In addition to the restoration of wetlands through the removal of embankment, wetland habitats in ENP would be improved through the restoration of deep sloughs in NESS and the promotion of distribution of sheetflow.

**Table 2. Land Use Impacts of Proposed Project Components**

| FLUCCS Code and Description                                 | Additional ROW | FDOT 5 ft. ROW | Culvert swales | Radio One access road | Lincoln Financial Media access road | Bridge construction easements | Total        |
|---|----------------|----------------|----------------|-----------------------|-------------------------------------|-------------------------------|--------------|
| 1400. Urban and Built-up: Commercial and Services           | 1.01           | 0.12           | 0.20           | 0.00                  | 0.00                                | 0.42                          | 1.74         |
| 5102. Natural River or Stream                               | 0.04           | 0.00           | 0.00           | 0.00                  | 0.00                                | 0.26                          | 0.30         |
| 6172. Wetlands: Mixed Shrubs                                | 17.18          | 2.39           | 8.27           | 0.04                  | 0.00                                | 5.25                          | 33.13        |
| 6410. Wetlands: Freshwater Marshes--Graminoid Prairie-Marsh | 13.99          | 1.06           | 0.33           | 0.34                  | 0.29                                | 7.42                          | 23.44        |
| 6411. Wetlands: Freshwater Marshes--Sawgrass                | 6.15           | 1.10           | 0.45           | 0.69                  | 0.04                                | 1.26                          | 9.68         |
| 8200. Communication Utilities                               | 0.47           | 0.06           | 0.00           | 0.00                  | 0.00                                | 0.00                          | 0.53         |
| <b>SubTotal--Wetlands Impacted:</b>                         | <b>37.32</b>   | <b>4.55</b>    | <b>9.05</b>    | <b>1.06</b>           | <b>0.33</b>                         | <b>13.93</b>                  | <b>66.25</b> |
| <b>Total Acres Impacted:</b>                                | <b>38.84</b>   | <b>4.73</b>    | <b>9.25</b>    | <b>1.06</b>           | <b>0.33</b>                         | <b>14.61</b>                  | <b>68.82</b> |

Sources: South Florida Water Management District, USACE

**Table 3. Impacts of Proposed Project on ENP Land**

| FLUCCS Code and Description                                 | Additional ROW | FDOT 5 ft. ROW | Culvert swales | Bridge construction easements | Total        |
|---|----------------|----------------|----------------|-------------------------------|--------------|
| 1400. Urban and Built-up: Commercial and Services           | 0.12           | 0.01           | 0.00           | 0.11                          | 0.23         |
| 6172. Wetlands: Mixed Shrubs                                | 14.06          | 2.16           | 7.80           | 4.91                          | 28.94        |
| 6410. Wetlands: Freshwater Marshes--Graminoid Prairie-Marsh | 11.15          | 0.88           | 0.24           | 7.33                          | 19.59        |
| 6411. Wetlands: Freshwater Marshes--Sawgrass                | 5.42           | 1.07           | 0.45           | 1.22                          | 8.17         |
| 8200. Communication Utilities                               | 0.47           | 0.06           | 0.00           | 0.00                          | 0.53         |
| <b>SubTotal--Wetlands Impacted:</b>                         | <b>30.63</b>   | <b>4.11</b>    | <b>8.49</b>    | <b>13.46</b>                  | <b>56.70</b> |
| <b>Total Acres:</b>   | <b>31.22</b>   | <b>4.18</b>    | <b>8.49</b>    | <b>13.57</b>                  | <b>57.46</b> |

Sources: South Florida Water Management District, USACE

#### **1.2.4 Summary of Mitigation Features Incorporated into the Proposed Project**

A “mitigation feature” is a management procedure, activity, or technique to reduce the severity of environmental impacts and/or offset impacts associated with a project.

In the development of the TSP, features that were incorporated to avoid, minimize, and compensate for potential adverse environmental effects include the removal of embankment where the bridges would be constructed. This allows for the restoration of wetland habitat in that section of the roadway to be degraded. Additionally, the removal of embankment would facilitate the restoration of sheet flow from the L-29 Canal southward into ENP. Therefore, the project offers far greater benefits to wetland habitat than it will adversely impact.

This project is part of a larger effort intended to provide ecological enhancement to many thousands of wetland acres through the hydrologic restoration of ENP, to the extent practicable. Therefore, this project can be considered self-mitigating. The loss of wetland habitat associated with project construction would be fully compensated by the project benefits.

Best Management Practices (BMPs) would be employed during construction activities in order to minimize erosion and control sediment transport off-site, including the retaining of grassed side-slopes along the sides of the highway and the incorporating of a stormwater collection and treatment system with the bridges.

Two wood stork (*Mycteria americana*) rookeries and snail kite management areas (Figure 20) exist near the project area, and restrictions would be in place during construction to minimize impacts.

### **1.3 AUTHORITY AND PURPOSE**

The Everglades National Park Protection and Expansion Act (Public Law [PL] 101-229, Section 104, 16 U.S.C. Part 410r-5 *et seq.*), December 1989, authorized the Secretary of the Army to undertake certain actions to improve water deliveries to the ENP and to take steps to restore natural hydrologic conditions. This Act provides the underlying authority for this project. Section 104 of the Act stated:

*The Everglades National Park is a nationally and internationally significant resource and the park has been adversely affected and continues to be adversely affected by external factors which have altered the ecosystem including the natural hydrologic conditions within the park. Wildlife resources and their associated habitats have been adversely impacted by the alteration of natural hydrologic conditions within the park, which has contributed to an overall decline in fishery resources and a 90 percent population loss of wading birds.*

The Act also provided direction for the U.S. Army Corps of Engineers (USACE) to initiate corrective actions to alleviate deterioration in natural resources of ENP attributed to changes in water conditions associated with construction of the Central and Southern Florida (C&SF) water management system. The Act stated:

*Upon completion of a final report by the Chief of the Army Corps of Engineers, the Secretary of the Army, in consultation with the Secretary, is authorized and directed to construct modifications to the Central and Southern Florida Project to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrological conditions within the park.*

*Such modifications shall be based upon the findings of the Secretary's experimental program authorized in Section 1302 of the 1984 Supplemental Appropriations Act (97 Stat. 1292) and generally as set forth in a General Design Memorandum to be prepared by the Jacksonville District entitled Modified Water Deliveries to Everglades National Park. The Draft of such Memorandum and the Final Memorandum, as prepared by the Jacksonville District, shall be submitted as promptly as practicable to the Committee on Energy and Natural Resources and the Committee on Environment and Public Works of the United States Senate and the Committee on Natural Resources and the Committee on Public Works and Transportation of the United States House of Representatives*

The GDM called for in the Act was completed in June 1992. This GDM and its associated Environmental Impact Statement (EIS) for Modified Water Deliveries (MWD) to ENP is the authorizing document for structural modifications and additions to the existing C&SF Project required for the modification of water deliveries for ecosystem restoration in the ENP. The 1992 GDM stated,

*The future without project condition will lead to the further deterioration of unique and outstanding ecological resources of the Everglades that are recognized and valued throughout the world. Therefore, based on the direction provided in the Everglades National Park Protection and Expansion Act of 1989, the goal is to restore natural hydrologic conditions in the Park to the extent practicable. Meeting this goal will lead to improvements in the abundance, diversity and ecological integrity of native plants and animals in the Park.*

Section 528 of the Water Resources Development Act enacted October 1996 (Public Law [PL] 102-580) was entitled “Everglades and South Florida Ecosystem Restoration.” This authorized a number of ecosystem restoration studies, now collectively known as the Comprehensive

Everglades Restoration Plan (CERP). As a result of this Act, the USACE submitted a report to Congress on July 1, 1999, containing a comprehensive blueprint for Everglades restoration. Implementation of CERP will further increase the flow of water entering NESS. The plan has subsequently been approved as the Water Resources and Development Act of 2000.

## **1.4 GENERAL DESCRIPTION OF DREDGED AND FILL MATERIAL**

### **1.4.1 General Characteristics**

Fill material will be composed of A-1 and A-3 select material, in accordance with FDOT Standard Indices 500 and 505. A four-inch drainage layer of No. 8 sieve material would be provided.

### **1.4.2 Quantity of Material**

The placement of additional fill is necessitated by the increase in grade of the roadway. The increased grade dictates the enlarged footprint in order to meet current FDOT standards for roadway typical section and stable side slopes. Where the existing highway will remain, additional fill will be emplaced in order to raise the road to a crown elevation of 12.3 feet NGVD from the average 10.0 feet NGVD. Because the crown elevation of the roadway would be raised, there is a need for additional width of the embankment on the southern edge of the road to stabilize side slopes. Constructing bridge approaches would require an expansion of up to 80 ft. south over a distance of approximately 1,700 ft., which would cause wetlands to be filled. Other aspects of the Recommended Plan that would require fill material include a possible five feet of ROW added to the top of the canal side slope for highway safety standards; and the raising and widening of access roads to Radio One and Lincoln Financial Media for possible flooding associated with the MWD project. A total of 44.97 acres would be impacted by fill material.

## **1.5 DESCRIPTION OF PROPOSED DISCHARGE SITES**

### **1.5.1 Location and Size**

The location of the proposed activity is a 10.7-mile extent of the Tamiami Trail west of Krome Avenue in central Miami-Dade County. The recommended plan involves creating an approximately three-mile-wide cumulative conveyance channel through Tamiami Trail by removing a two-mile western portion and one-mile eastern portion of highway and embankment. Two bridges would be constructed over the opening to replace the removed section of road and maintain motor vehicle traffic across the opening. In order to provide the required space clearance for construction of the bridge, the bridge would be constructed approximately 50 feet to the south of the existing alignment. The approximately eight miles of remaining highway would be reconstructed to raise the Profile Grade Line (crown elevation) to the minimum required based on the Design High Water and the roadway cross section geometry. In order to meet FDOT criteria for stable side slopes, the roadway width would increase, and additional right-of-way will be required to the south of the existing highway. The width of the embankment expansion is estimated to vary from 0 to about 40 feet, depending on the amount of

elevation a particular portion of the road needs. Constructing bridge approaches would require an expansion of up to 80 feet south over a distance of approximately 1700 feet.

### **1.5.2 Type of Site/Habitat**

The site is located on the Tamiami Trail, a paved asphalt roadway with a typical section of two 12-foot travel lanes, an 8-foot-wide shoulder on each side of the roadway, and a guardrail at each edge of the shoulder.

The type of habitat adjacent to the existing Tamiami Trail includes long and short hydroperiod wetlands as well as an abundance of interspersed willowheads, bayheads, and hardwood hammocks. Sawgrass (*Cladium jamaicense*) communities dominate the long hydroperiod wetlands while muhly grass (*Muhlenbergia capillaris*) and black sedge (*Schoenus nigricans*) dominate the short period wetlands mostly influenced by NESS and local rainfall.

There are four herbaceous wetland cover types present in the Everglades: (1) sloughs with deep, permanent water levels, (2) sawgrass marshes with semi-permanent water levels and long hydroperiods, (3) wet peat prairies, and (4) wet marl prairies with shorter hydroperiods. The wetland cover types are differentiated by the average flooding depth and duration and by their predominant plant cover.

The dominant species of vegetation along the south side of Tamiami Trail is the invasive exotic species, the Brazilian pepper (*Schinus terebenthifolius*). The Brazilian pepper forms a corridor of 10-30 feet wide.

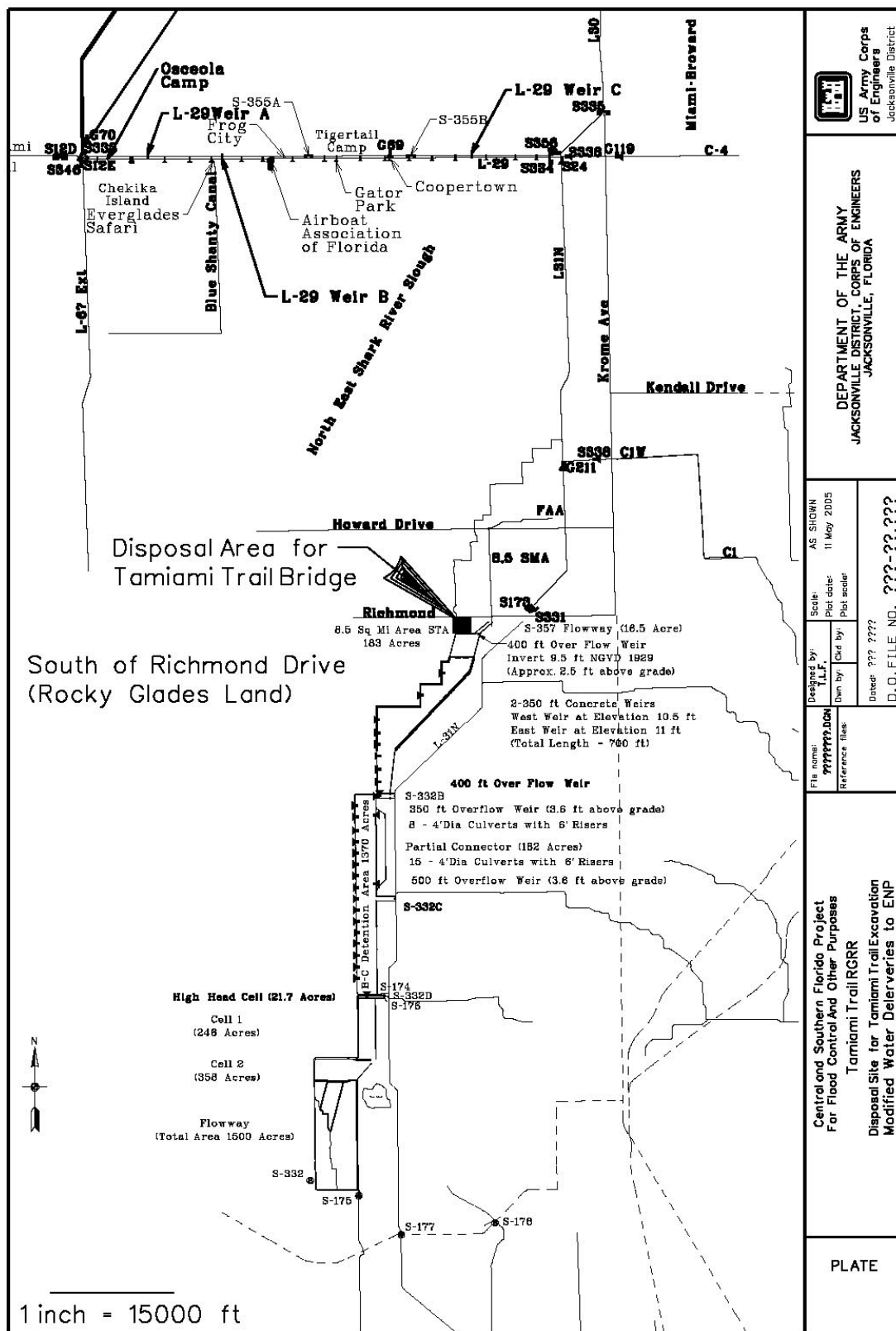
### **1.5.3 Timing and Duration of Discharge**

Construction of the project is anticipated to begin in late 2007 and is expected to require 33 months to complete.

## **1.6 DESCRIPTION OF DISPOSAL METHODS**

The TSP involves the placement of fill on the south side of the Tamiami Trail. The encroachment into ENP on the south side of the roadway varies from three (3) feet along the portions of the highway to remain in place to 80 feet where transitions from the roadway to the bridge will be constructed.

The TSP also involves the removal of approximately three miles of existing highway and embankment where traffic would be served by the bridges. The fill material would be disposed approximately 10 miles south of the project area in the C-111 Basin (Rocky Glades), which is owned by SFWMD. The material would be stockpiled south of the 8.5 Square Mile Area (8.5 SMA) and west of the Flow Way (Figure A-1). Selected quantities of soils and organic peat may be evaluated for placement in the nearby Broward Water Preserve Area. Excavated fill may also be evaluated for backfilling the levee for the L-67 Extension project, where up to 50,000 cubic yards of material could be needed.



## **2.0 FACTUAL DETERMINATIONS**

### **2.1 PHYSICAL SUBSTRATE DETERMINATIONS**

#### **2.1.1 Substrate Elevation and Slope**

The elevation ranges from 9.8 feet, National Geodetic Vertical Datum (NGVD) 1929 to 10.1 feet NGVD, with very little slope.

#### **2.1.2 Sediment Type**

Sediment is nearly level and poorly drained, consisting of organic material eight to more than 51 inches deep. The black to dark brown muck is underlain by soft, porous limestone.

#### **2.1.3 Dredged and Fill Material Movement**

The proposed action does not involve the movement of dredged material. However, fill material will both be added and removed. Where the existing highway will remain, additional fill will be emplaced in order to raise the road to a crown elevation of 12.3 feet NGVD from the average 10.0 feet NGVD. Because the crown elevation of the roadway would be raised, there is a need for additional width of the embankment on the southern edge of the road to stabilize side slopes. Constructing bridge approaches would require an expansion of up to 80 ft. south over a distance of approximately 1,700 ft., which would cause wetlands to be filled. Other aspects of the Recommended Plan that would require fill material include a possible five feet of ROW added to the top of the canal side slope for highway safety standards; and the raising and widening of access roads to Radio One and Lincoln Financial Media for possible flooding associated with the MWD project. Bridge construction easements may require material to be removed or filled, but the design for the easements is under development and a final decision on the design has not been determined. The greatest impact would be the placement of suitable fill on the area to allow mobility and operation of heavy equipment for constructing the bridges. A total of 49 acres could potentially be impacted by fill material, but a final decision has not been made.

Where the transition to the new bridge would be constructed, the existing embankment and muck would be removed to bedrock, and a new embankment of A-1 and A-3 material will be built. Fill material will consist of A-1 and A-3 select material in accordance with FDOT Standard Indices 500 and 505. The new bridge would be constructed approximately 50 feet to the south of the existing highway, using Florida Bulb Tee (FBT) 72 Beams with a composite cast-in-place concrete deck. This superstructure will be supported on pile bents using 24-inch square pre-cast, pre-stressed concrete piles.

#### **2.1.4 Physical Effects on Substrate**

With the addition of fill material on the south side of Tamiami Trail, the wetland habitat adjacent to the south side of the highway will cease to function as such. On the transitions to the bridge, the existing embankment and muck will be removed to bedrock for the emplacement of A-1 and A-3 select material. The portion of roadway to be bridged will have the existing fill,

approximately 16.5 acres, removed. Approximately 8.5 acres of muck would be removed if the culvert swales are constructed.

Through project implementation, the distribution of flows would occur more evenly through the three-mile conveyance channel created by the bridges and through the remaining culverts under the improved roadway. The restoration of water deliveries would enable the restoration in ENP of vegetative communities by enabling the shift to open water, spikerush marsh and slough communities, by reducing the risk of ridge and tree island peat burning and by minimizing the invasion of exotic woody plant species.

### **2.1.5 Other Effects**

No change in the general type of substrate is expected because the adjacent area is in public lands with WCA-3B to the north and ENP to the south side of Tamiami Trail. The quality of the substrate will be improved through project implementation.

### **2.1.6 Actions Taken to Minimize Impacts**

The recommended plan incorporates actions to avoid and minimize impacts to aquatic communities. See Section 1.3.2, *Summary of Mitigation Features Incorporated into the Tentatively Selected Plan*.

## **2.2 WATER CIRCULATION, FLUCTUATION, AND SALINITY DETERMINATION**

### **2.2.1 Water Quality**

Existing water quality in the Everglades is greatly influenced by both urban and agricultural development-related activities of south Florida. The primary constituents of concern in ENP include nutrients, dissolved oxygen (DO), mercury, biochemical oxygen demand (BOD), and coliforms. In WCA-3B the constituents of concern are total phosphorus, DO, conductivity, mercury, and nitrite/nitrate nitrogen. Canals bordering the WCAs generally have very low DO levels typical of marsh waters.

Highway runoff potentially introduces contaminants such as metals, fuels, lubricants, combustion products, and toxic chemicals. Based on the low traffic volume along Tamiami Trail (5,200 vehicles per day), it can be inferred that the introduction of pollutants due to highway runoff is minimal.

The bridges will be constructed with a pollution abatement system that will collect stormwater runoff from the bridges only.

#### **2.2.1.1 Salinity**

Not applicable.

#### **2.2.1.2 Water Chemistry**

The potential increase in sediment transport during construction would be minimized through the implementation of BMPs. Nutrient levels in the project area may increase slightly from sediment disturbing activities. No significant long-term increases in these conditions are expected as a result of the project.

The long-term water quality in ENP would not be affected by the proposed project.

#### **2.2.1.3 Clarity**

Turbidity may increase during construction, but would revert to pre-construction conditions once implementation of the project is complete.

#### **2.2.1.4 Color**

No expected change.

#### **2.2.1.5 Odor**

The soils in the project area contain thick layers of organic material from eight to 51 inches thick. The exposure of the muck may release odors; however, these fumes are not noxious.

An investigation of hazardous, toxic, and radioactive waste (HTRW) was performed for the project area in accordance with the provisions of ASTM Standard E 1527-00, Standard Procedure for Environmental Site Assessments: Phase I Environmental Site Assessment Process. While no evidence of HTRW exists, the potential always exists that contaminants previously unknown to be present could be disturbed or released by removing unnatural structures from the landscape. If contaminants are found during construction through visual or olfactory means, the site would be remediated before construction recommences.

#### **2.2.1.6 Taste**

Not applicable.

#### **2.2.1.7 Dissolved Gas Levels**

The release of organic materials from sediments may slightly increase BOD, and the release of reduced materials may slightly increase chemical oxygen demand (COD), both of which would have the effect of lowering dissolved oxygen concentrations in the ecosystem. These impacts would be temporary, limited only to the time of construction and soil-disturbing activities.

#### **2.2.1.8 Nutrients**

Nutrient levels in the project area may increase slightly from sediment disturbing activities. This impact would be temporary, during construction activities only. No long-term change in nutrient concentrations would occur from implementation of the project.

#### **2.2.1.9 Eutrophication**

Not applicable.

### **2.2.2 Current Patterns and Circulation**

#### **2.2.2.1 Current Patterns and Flow**

Implementation of the recommended plan would have beneficial effects on the current pattern and flow of waters in the project area. Modifications to Tamiami Trail will provide the capacity for the design high water (DHW) of 9.7 feet in the L-29 Canal. The distribution of flows would occur through two conveyance channels totaling three miles wide and through the remaining existing culverts.

#### **2.2.2.2 Velocity**

The existing culvert system concentrates flows from L-29 Canal under Tamiami Trail through localized points. Flow velocity has been a concern.

The project would reduce high flow velocity discharges beyond that of the No-Action Alternative. Rather than concentrating flows under Tamiami Trail at the existing 55 culverts, flows would be more evenly distributed through the conveyance channels. Additionally, the TSP would minimize the difference between the average velocity of flows at the road and those in the ENP marsh.

#### **2.2.2.3 Stratification**

The project would have a beneficial impact on stratification in the project vicinity. Instead of concentrating sediment flows through the system of existing culverts, the three-mile-wide conveyance channel would enable that flow to be more evenly distributed over a two-mile wide corridor in the west and a one-mile corridor in the east.

#### **2.2.2.4 Hydrologic Regime**

The hydrologic regime in south Florida has been drastically altered in the last hundred years through development of urban areas, agricultural practices, and the construction of systems of canals and levees. Rather than conveying sheet flow over a vast expanse of Everglades, south Florida has become decompartmentalized, and flow has been concentrated through canals.

The implementation of the project would assist in the restoration of water deliveries to ENP. In turn, the natural ridge and slough processes would be restored.

### **2.2.3 Normal Water Level Fluctuations**

Water levels fluctuate during the year. The wet season in south Florida extends from May to September when there exists a higher than average incident of rainfall. The dry season lasts from October through April.

Currently, WCA-3B helps to maintain water levels in ENP, serving as storage for runoff during the wet season for use during the dry season. Water releases into ENP are only allowed when the minimum water level is achieved.

The proposed project will provide for the DHW of 9.7 feet in the L-29 Canal which is required by MWD. By allowing for a higher design stage, the deep sloughs of ENP are capable of maintaining water storage potentially year-round, except during extremely dry years.

### **2.2.4 Salinity Gradients**

Not applicable.

### **2.2.5 Actions That Will be Taken to Minimize Impacts**

The TSP incorporates actions to restore water circulation and fluctuations in NESS. See Section 1.3.2, *Summary of Mitigation Features Incorporated into the Tentatively Selected Plan*.

## **2.3 SUSPENDED PARTICULATE/TURBIDITY DETERMINATIONS**

### **2.3.1 Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Disposal Sites**

No changes in suspended particulates and turbidity levels are expected in the vicinity of the disposal site.

### **2.3.2 Effects on Chemical and Physical Properties of the Water Column**

#### **2.3.2.1 Light Penetration**

Sediments released during construction operations may periodically reduce light penetration. Photosynthesis and primary productivity in portions of the affected areas is not expected to decrease because light attenuation from very briefly suspended particulates would be negligible.

#### **2.3.2.2 Dissolved Oxygen**

Effects on BOD and COD levels are expected to be minimal.

### **2.3.2.3 Toxic Metals and Organics**

No anticipated increase in toxic metals and organics exists.

### **2.3.2.4 Pathogens**

This project would have no effect on pathogens.

### **2.3.2.5 Aesthetics**

Implementation of the project would beneficially impact the aesthetics of the area, as exotic vegetation would be removed along the highway and the bridges would offer an expansive view of the Everglades.

## **2.3.3 Effects on Biota**

### **2.3.3.1 Primary Production**

Photosynthesis and primary productivity in portions of the affected areas is not expected to decrease because light attenuation from very briefly suspended particulates would be negligible. As these particulates settle, primary production would return to pre-project levels.

### **2.3.3.2 Suspension/Filter Feeders**

No impact to suspension/filter feeders is anticipated.

### **2.3.3.3 Sight Feeders**

No impact to sight feeders is anticipated.

## **2.3.4 Actions Taken to Minimize Impacts**

The recommended plan incorporates actions to avoid and minimize impacts to aquatic communities. See Section 1.2.4, *Summary of Mitigation Features Incorporated into the Recommended Plan*. Aquatic communities are expected to benefit from the project.

## **2.4 CONTAMINANT DETERMINATIONS**

An investigation of HTRW was performed for the project area in accordance with the provisions of ASTM Standard E 1527-00, Standard Procedure for Environmental Site Assessments: Phase I Environmental Site Assessment Process. While no evidence of HTRW exists, the potential always exists that contaminants previously unknown to be present could be disturbed or released by removing unnatural structures from the landscape. If contaminants are found during construction through visual or olfactory means, the site would be remediated before construction re-commenced.

## **2.5 AQUATIC ECOSYSTEM AND ORGANISM DETERMINATION**

### **2.5.1 Plankton**

No major changes in the plankton communities are anticipated as a direct result of the project.

### **2.5.2 Benthos**

No impacts to the benthic community are anticipated.

### **2.5.3 Nekton**

Impacts to nekton from implementation of the project are anticipated to be beneficial. During construction, elevated sediment levels during fill removal may occur; however, these impacts would be related to construction. Once construction is complete, improved water flow and distribution from WCA-3B and the L-29 Canal through Tamiami Trail to ENP would improve conditions and increase the total abundance of fishes in ENP.

### **2.5.4 Aquatic Food Web**

The aquatic food web would not be adversely impacted from the project.

### **2.5.5 Special Aquatic Sites Effects**

#### **2.5.5.1 Sanctuaries and Refuges**

WCA-3B managed by the Florida Fish and Wildlife Conservation Commission (FWC) as the Francis S. Taylor Wildlife Management Area is located north of the project area, and ENP and NESS are located south of the project area. No excavated material would be placed within WCA-3B; however, encroachment of the highway to the south will be necessitated in order to meet current FDOT highway construction standards.

ENP is designated in F.A.C. 62-302.700(9)(a) as an Outstanding Florida Water (OFW), which Florida Department of Environmental Protection (FDEP) defines as a water worthy of special protection because of its natural attributes. The OFW designation requires that existing ambient water quality be maintained. Therefore, turbidity and other water quality impacts would be restricted to a mixing zone approved by FDEP and would occur temporarily during construction activities only.

#### **2.5.5.2 Wetlands**

Implementing the project would involve a loss of 66.25 acres of wetlands. Removal of the existing highway embankment would allow the restoration of 25.31 acres of wetlands. Therefore, construction of the project would result in a net loss of 40.94 acres of wetlands.

Exotic vegetation present along the south side of Tamiami Trail has diminished the quality of wetland habitat in the project area. The dominant exotic species of vegetation, Brazilian pepper (*Schinus terebenthifolius*), exists in a 10 to 30-foot-wide corridor along the highway. The construction of modifications to Tamiami Trail presents the opportunity to remove existing exotic vegetation, thereby improving the quality of wetlands in the project area.

As discussed in the 2005 RGRR/SEIS, additional wetland benefits would be realized through restoration of water deliveries to ENP, ridge and slough processes and vegetative communities.

#### **2.5.5.4 Vegetated Shallows**

Historically, the area was predominantly ridge and slough habitat, a complex mosaic of marsh assemblages with distinct tree islands. Currently, WCA-3B and ENP are dominated by long and short hydroperiod wetlands with an abundance of interspersed willowheads, bayheads, and hardwood hammocks. Sawgrass (*Cladium jamaicense*) communities dominate the long hydroperiod wetlands while muhly grass (*Muhlenbergia capillaris*) and black sedge (*Schoenus nigricans*) dominate the short hydroperiod wetlands. Four herbaceous wetland cover types are found in the project area: (1) sloughs with deep, permanent water levels, (2) sawgrass marshes with semi-permanent water levels and long hydroperiods, (3) wet peat prairies, and (4) wet marl prairies with shorter hydroperiods.

The project would help restore water deliveries to ENP and thus restore the quality of vegetative communities south of Tamiami Trail.

#### **2.5.5.5 Coral Reefs**

Not applicable.

#### **2.5.5.6 Riffle Pool Complexes**

Not applicable.

## **2.5.6 Threatened and Endangered Species**

Six Federally protected species are known or are potentially encountered in the project area in the 2003 and 2005 Fish and Wildlife Coordination Act Report (FWCAR). These include the Cape Sable seaside sparrow (CSSS) (*Ammodramus maritimus mirabilis*), eastern indigo snake (*Drymarchon corais couperi*), Florida panther (*Puma [=Felis] concolor coryi*), snail kite (*Rostrhamus sociabilis*), West Indian manatee (*Trichechus manatus*), and wood stork (*Mycteria americana*). FWC also identified a wading bird rookery just north of the project area across L-29 Canal.

USFWS and FWC did not recommend protective measures or restrictions during construction for the Florida panther, snail kite, West Indian manatee, or the Frog City wading bird rookery. The project was also determined to not preclude compliance with the reasonable and prudent alternatives (RPA) established for conservation of the CSSS through the 1999 USFWS Biological Opinion. Protective measures will be put in place during construction to avoid and minimize impacts to the eastern indigo snake and the wood stork.

After implementation of the project, wildlife mortality in the area is expected to decrease as a result of the three-mile elevated section.

## **2.5.7 Other Wildlife**

The American alligator (*Alligator mississippiensis*) and the Everglades mink (*Mustela vison evergladensis*) were reported in the FWCAR to be present in the area. These species are protected by the State of Florida. After implementation of the project, wildlife mortality in the area is expected to decrease as a result of the four-mile elevated section.

## **2.5.8 Actions to Minimize Impacts**

The recommended plan incorporates actions to avoid and minimize impacts to aquatic communities. See Section 1.2.4, *Summary of Mitigation Features Incorporated into the Recommended Plan*. Although not a part of the project purpose, wildlife crossings can be incorporated into the project as a betterment or enhancement if funded from another source, or the betterment can be included in another project.

## **2.6 PROPOSED DISPOSAL SITE DETERMINATIONS**

### **2.6.1 Mixing Zone Determination**

The sediments to be removed from the project area consist of highway embankment and organic material known to exist within the embankment and which will be removed down to bedrock during the construction of the bridge transition segments and for culvert swales, if constructed. The amount of material scheduled to be removed from the embankment covers approximately 36.6 acres. The fill material will be disposed of 15-20 miles south of the project area in the C-111 Basin (Rocky Glades). The material would be stockpiled north of the 8.5 Square Mile Area (8.5

SMA) and west of the Flow Way. Selected quantities of soils and organic peat may be evaluated for placement in the nearby Broward Water Preserve Area.

Additionally, ENP is designated in F.A.C. 62-302.700(9)(a) as an Outstanding Florida Water (OFW), which the Florida Department of Environmental Protection (FDEP) defines as a water worthy of special protection because of its natural attributes. The OFW designation requires that existing ambient water quality be maintained. Therefore, turbidity and other water quality impacts would be restricted to a mixing zone approved by FDEP and would occur temporarily during construction activities only.

## **2.6.2 Potential Effects on Human Use Characteristics**

### **2.6.2.1 Municipal and Private Water Supply**

No adverse effects would occur to municipal or private water supply.

### **2.6.2.2 Recreational and Commercial Fisheries**

Indirect effects of the project on habitat of fishes are discussed in Section 2.5.3, *Nekton*. This project would have no adverse impacts on recreational and commercial fisheries.

### **2.6.2.3 Water Related Recreation**

The project area is used for both consumptive (fishing, hunting, and frogging) and non-consumptive (wildlife viewing, camping, boating, airboating, etc.) recreational use. Access to businesses and other existing facilities would be maintained during and after construction. Bank fishing from the highway would be eliminated in the vicinity of the bridge, but access to the L-29 Canal would be maintained using the L-29 Levee road.

### **2.6.2.4 Aesthetics**

During construction, the aesthetics of the area would be impacted by heavy equipment and construction related activities. However, after construction is completed, a net long-term gain would be realized. Exotic vegetation would be removed from the edge of the highway, and the bridge would offer expansive views of ENP.

### **2.6.2.5 Parks, National Historic Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves**

The project is part of a larger effort to restore ecological values to the Everglades. The implementation of this project would benefit both WCA-3B and ENP.

## **2.7 DETERMINATION OF CUMULATIVE EFFECTS ON THE AQUATIC ECOSYSTEM**

The project would restore hydrologic patterns and ecological connectivity in a portion of the Everglades ecosystem to the extent practicable. It is compatible with future actions to be taken throughout the area of south Florida and minimizes retrofit that would be necessary should future enhancements of Tamiami Trail be undertaken.

## **2.8 DETERMINATION OF SECONDARY EFFECTS ON THE AQUATIC ECOSYSTEM**

All benefits to flora and fauna would be secondary in that the direct effects of the project would be hydrological, but the secondary effects of the project would benefit the ecological components of the region. Both the vegetation and the fish and wildlife resources would be improved upon implementation of the TSP.

## **2.9 ACTIONS TAKEN TO MINIMIZE IMPACTS**

The recommended plan incorporates actions to avoid and minimize impacts to aquatic communities. See Section 1.2.4, *Summary of Mitigation Features Incorporated into the Tentatively Selected Plan*. The project is designed to benefit aquatic communities.

## **3.0 FINDINGS OF COMPLIANCE OR NON-COMPLIANCE WITH THE RESTRICTIONS ON DISCHARGE**

### **3.1 ADAPTATION OF THE SECTION 404(b)(1) GUIDELINES TO THIS EVALUATION**

No significant adaptations of the guidelines were made relative to this evaluation.

### **3.2 EVALUATION OF AVAILABILITY OF PRACTICABLE ALTERNATIVES TO THE PROPOSED DISCHARGE SITE THAT WOULD HAVE LESS ADVERSE IMPACT ON THE AQUATIC ECOSYSTEM**

Section 2.0 of the Third Supplemental EIS, *Alternatives*, discusses the No-Action alternative and the TSP. Alternatives to the TSP were analyzed in Section 5.0 of the RGRR/SEIS, *Formulation of Alternative Plans*. No practicable alternative exists that meets the study objectives and does not involve discharge of fill into waters of the United States.

### **3.3 COMPLIANCE WITH APPLICABLE STATE WATER QUALITY STANDARDS**

The project would not violate any applicable state water quality standards with the possible exception of temporary and negligible increases in turbidity, which might occur during construction. All other standards would be maintained during and following the placement of excavated and fill material.

### **3.4 COMPLIANCE WITH APPLICABLE TOXIC EFFLUENT STANDARD OR PROHIBITION UNDER SECTION 307 OF THE CLEAN WATER ACT**

This project would be in full compliance of Section 307 of the Clean Water Act and would not violate the Toxic Effluent Standards.

### **3.5 COMPLIANCE WITH THE ENDANGERED SPECIES ACT OF 1973**

The proposed project would not harm any threatened or endangered species or their critical habitats. Coordination with USFWS has been maintained throughout the planning process for this project. USFWS comments concerning protected species were addressed in the RGRR/SEIS.

### **3.6 COMPLIANCE WITH SPECIFIED PROTECTION MEASURES FOR MARINE SANCTUARIES DESIGNATED BY THE MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT OF 1972**

Not Applicable.

### **3.7 EVALUATION OF EXTENT OF DEGRADATION OF THE WATERS OF THE UNITED STATES**

#### **3.7.1 Significant Adverse Effects on Human Health and Welfare**

The proposed project would not result in adverse effects on human health and welfare.

##### **3.7.1.1 Municipal and Private Water Supplies**

This project would not be located near municipal water supply intakes or private water supplies.

##### **3.7.1.2 Recreational and Commercial Fishing**

Recreational bank fishing would be eliminated along the bridges where the highway embankment would be removed; however access to the L-29 Canal would remain from the L-29 Levee which can be accessed from the S-333 or S-334 water control structure.

##### **3.7.1.3 Plankton**

This project would not adversely affect plankton.

#### **3.7.1.4 Fish**

This project would not adversely affect fisheries resources. The project would on the contrary enhance the total abundance of fishes in ENP based upon the improvement of water distribution and flow through the three-mile-wide conveyance channel, two miles on the west side of the project and one mile on the east side.

#### **3.7.1.5 Shellfish**

This project would not adversely affect shellfish.

#### **3.7.1.6 Wildlife**

With the incorporation of protective measures for the wood stork and the eastern indigo snake, this project will not impact wildlife in the area. After construction of the bridge is complete, wildlife mortality in the project area is expected to decrease.

#### **3.7.1.7 Special Aquatic Sites**

WCA-3B and ENP would not be adversely impacted by the project.

### **3.7.2 Significant Adverse Effects on Life Stages of Aquatic Life and Other Wildlife Dependent on Aquatic Ecosystems**

Significant adverse effects of life stages of aquatic life are not anticipated.

### **3.7.3 Significant Adverse Effects on Aquatic Ecosystem Diversity, Productivity, and Stability**

Significant adverse effects on aquatic ecosystem diversity, productivity, and stability are not anticipated.

### **3.7.4 Significant Adverse Effects on Recreational, Aesthetic, and Economic Values**

The proposed plan would have no adverse impacts on recreational, aesthetic, and economic values.

### **3.7.5 Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of the Discharge on the Aquatic Ecosystem**

The recommended plan incorporates actions to avoid and minimize impacts to aquatic communities. The project is intended to benefit the aquatic ecosystem. See Section 1.2.4, *Summary of Mitigation Features Incorporated into the Tentatively Selected Plan*. Among

features applicable to the substrate are the removal of highway embankment where the new bridges would be located, the incorporation of best management practices into construction activities, and the implementation of protective measures for the Tamiami East and West Wood Stork colonies.

### **3.8 COMPLIANCE**

Based on the guidelines, the proposed project is specified as complying with the requirements of these guidelines with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects to the affected aquatic ecosystem.

#### **4.0 REFERENCES CITED**

- U.S. Army Corps of Engineers. 1992. General Design Memorandum and Environmental Impact Statement, Modified Water Deliveries to Everglades National Park. Jacksonville District, U.S. Army Corps of Engineers.
- U.S. Army Corps of Engineers. 2003. General Reevaluation Report and Supplemental Environmental Impact Statement for the Tamiami Trail Modifications. Jacksonville District, U.S. Army Corps of Engineers.
- U.S. Army Corps of Engineers. 2005. Final General Reevaluation Report/Second Supplemental Environmental Statement (RGRR/SEIS) for the Tamiami Trail Modifications, Jacksonville District, U.S. Army Corps of Engineers.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1996. Soil Survey of Dade County Area, Florida.

## **Appendix B**

# **COASTAL ZONE MANAGEMENT FEDERAL CONSISTENCY EVALUATION**

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**FLORIDA COASTAL ZONE MANAGEMENT PROGRAM  
FEDERAL CONSISTENCY EVALUATION PROCEDURES**

**Tamiami Trail Modifications  
Dade County, Florida**

**1. Chapter 161, Beach and Shore Preservation. The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.**

Response: The proposed plans and information will be submitted to the state in compliance with this chapter. Construction will not be located seaward of the line of mean high water or where it might have an effect on natural shoreline processes.

**2. Chapters 163 (part II), 186, and 187, County, Municipal, State and Regional Planning. These chapters establish the Local Comprehensive Plans, the Strategic Regional Policy Plans, and the State Comprehensive Plan (SCP). The SCP sets goals that articulate a strategic vision of the State's future. Its purpose is to define in a broad sense, goals, and policies that provide decision-makers directions for the future and provide long-range guidance for an orderly social, economic, and physical growth.**

Response: The proposed project has been coordinated with various Federal, State, and local agencies during the planning process. The proposed project involves identifying a means for conveying increased flows of water under U.S. Highway 41 (Tamiami Trail) to the Everglades National Park (ENP) as part of the Modified Water Deliveries (MWD) Program to restore natural hydrologic conditions in ENP. The project would provide for the enhancement and assist in the restoration of the Everglades ecosystem. The project is in full compliance with the goals of this chapter.

**3. Chapter 252, Disaster Preparation, Response and Mitigation. This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health and safety; and to preserve the lives and property of the people of Florida.**

Response: The proposed project would have little or no impact on disaster preparation. Full conformance and compliance consistent with the efforts of Division of Emergency Management is intended.

**4. Chapter 253, State Lands. This chapter governs the management of submerged state lands and resources within the state. This includes archeological and historical resources; water resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.**

Response: Each type of resources protected to the extent practicable under this statute is addressed in the EIS. The project is aimed at providing for full conformance and compliance with the goals of this chapter.

**5. Chapters 253, 259, 260, and 375, Land Acquisition. This chapter authorizes the state to acquire land to protect environmentally sensitive areas.**

Response: Implementation of the proposed plan does not require State acquisition of lands for the purposes of protection of environmentally sensitive areas.

**6. Chapter 258, State Parks and Aquatic Preserves. This chapter authorizes the state to manage state parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management or operations.**

Response: To the northern boundary of the project area is Water Conservation Area 3B (WCA-3B) of the South Florida Water Management District, the Francis S. Taylor Wildlife Management Area. The Florida Fish and Wildlife Conservation Commission (FWC) manages this area for recreation. The project is not anticipated to adversely affect state lands; in fact, the proposed project attempts to restore hydrologic flows from WCA-3B to ENP. Full conformance and compliance with the requirements for protecting these resources is intended.

**7. Chapter 267, Historic Preservation. This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.**

Response: Historic structures in the project area include Coopertown, the Airboat Association of Florida, Tamiami Trail, and the Tamiami (L-29) Canal. Coopertown and the Airboat Association of Florida would be impacted by construction and inundation from water elevations associated with the MWD project. The construction right-of-way required for reconstruction of the highway would result in the taking of Coopertown's entire parking area, and most of Coopertown's property would be inundated at the 100-year stage. Additional right-of-way required for construction would encroach on property belonging to the Airboat Association and project implementation would result in an increase in the elevation and duration of water on approximately 10 acres at the site. The USACE would obtain a perpetual flowage easement because of induced flooding. The Tamiami Trail, itself a historic property eligible for NRHP listing, would be reconstructed with bridged portions of the highway embankment removed. The Tamiami (L-29) Canal to the north of the road would not be affected by the project.

**8. Chapter 288, Economic Development and Tourism. This chapter directs the state to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.**

Response: The airboat businesses on Tamiami Trail—Everglades Safari Park, Gator Park, and Coopertown Airboat Rides—draw a large influx of state, national, and international tourists to this area of ENP. Therefore, the TSP's effects on these businesses could adversely affect the area's ecotourism industry. The closing of Everglades Safari and Coopertown could significantly limit tourism options for thousands of cruise ship passengers from the Port of Miami.

**9. Chapters 334 and 339, Transportation. This chapter authorizes the planning and development of a safe, balanced and efficient transportation system.**

Response: Tamiami Trail is not one of the "officially designated" evacuation routes authorized for reverse-laning. However, due to its location as the southern-most east-west artery in the

state, Tamiami Trail provides critical eastbound and westbound coast-to-coast access between Miami and Naples. The use of Tamiami Trail as an “implied” evacuation route would require that the highway’s evacuation route capabilities be maintained during hurricane season. This may influence construction phasing and maintenance of traffic flows during construction. The project will be consistent with the goals of this chapter.

**10. Chapter 370, Saltwater Living Resources. This chapter directs the state to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each such species; and, to conduct scientific, economic, and other studies and research.**

Response: The proposed project would not adversely impact saltwater living resources. Based on overall impacts of the project, the project is consistent with the goals of this chapter.

**11. Chapter 372, Living Land and Freshwater Resources. This chapter establishes the Game and Freshwater Fish Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions which provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.**

Response: The project has been closely coordinated with the FWC and should have no significant adverse effects on freshwater aquatic or wild animal life. The project is expected to benefit wildlife through its contribution toward the hydrologic restoration of Northeast Shark River Slough in ENP.

**12. Chapter 373, Water Resources. This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.**

Response: The project sponsor is the South Florida Water Management District. The plans for withdrawal, diversion, storage, and consumption of water are fully coordinated with the sponsor, and a recommendation would be made with full concurrence from the State.

**13. Chapter 376, Pollutant Spill Prevention and Control. This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.**

Response: Compliance with State law will require the contractor to obtain a General Construction National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES program requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which will address the storage, generation, and disposal of hazardous and toxic substances. The retaining of grassed side-slopes along the sides of the highway and the incorporating of a stormwater collection and treatment system with the bridges would result in no adverse effect on water quality.

**14. Chapter 377, Oil and Gas Exploration and Production. This chapter authorizes the regulation of all phases of exploration, drilling, and production of oil, gas, and other petroleum products.**

Response: This project does not involve the exploration, drilling or production of gas, oil or other petroleum products. Therefore, this chapter does not apply to the proposed project.

**15. Chapter 380, Environmental Land and Water Management. This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact nature of proposed large-scale development. This chapter also deals with the Area of Critical State concern program and the Coastal Infrastructure Policy,**

Response: The proposed project will not promote any large-scale development or have an impact defined as regional development. Therefore, the project is consistent with the goals of this chapter.

**16. Chapter 381 (selected subsections on on-site sewage and disposal systems) and 388 (Mosquito/Arthropod Control). Chapter 388 provides for a comprehensive approach for abatement or suppression of mosquitoes and other pest arthropods within the state.**

Response: The projects will not further the propagation of mosquitoes or other pest arthropods.

**17. Chapter 403, Environmental Control. This chapter authorizes the regulation of pollution of the air and waters of the state by the Florida Department of Environmental Regulation [now a part of the Florida Department of Environmental Protection (FDEP)].**

Response: The project is in compliance with both the Clean Water Act of 1972 and the Clean Air of 1970. This project is being fully coordinated with FDEP. Full compliance with State regulations is accomplished.

**18. Chapter 582, Soil and Water Conservation. This chapter establishes policy for the conservation of the state soil and water through the Department of Agriculture. Land use policies will be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop, and utilize soil and water resources both onsite or in adjoining properties affected by the project. Particular attention will be given to projects on or near agricultural lands.**

Response: The proposed project is not located on or near agricultural lands, including those considered to be prime and/or unique farmlands. Full compliance with State regulations is anticipated.

# Appendix C

## **AGENCY COORDINATION**





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

(850) 942-9650

10/25/06

OCT 25 2006

October 20, 2006

In Reply Refer To: **HPR-FL**

Mr. Dan B. Kimball  
Superintendent  
US Department of Interior  
Everglades and Dry Tortugas National Parks  
40001 State Road 9336  
Homestead, Florida 33034-6733

Dear Mr. Kimball:

Subject: Modified Water Distribution to Everglades National Park - Tamiami Trail Modifications

This letter is in response to your letter of October 10, 2006 and serves as verification of information provided in conversations and emails between our respective staffs. Section 4(f) of the Department of Transportation (DOT) Act does not apply to the transfer of Everglades National Park (ENP) property to Florida DOT for implementation of the Modified Water Deliveries (MWD) project. The proposed project is an environmental restoration project and the Federal Highway Administration's involvement in the transfer of property between another Federal Agency and the Florida DOT would not trigger the applicability of Section 4(f).

Should you have any further questions, please contact Mr. George Hadley at (850) 942-9650, extension 3011.

Sincerely,

For: David C. Gibbs  
Division Administrator

cc: Ms. Alice Bravo, FDOT (District 6)



## **Appendix D**

# **COMPLIANCE WITH ENVIRONMENTAL LAWS, REGULATIONS, AND EXECUTIVE ORDERS**

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**CENTRAL AND SOUTHERN FLORIDA STUDY**  
**THIRD SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT**  
**TAMIAMI TRAIL MODIFICATIONS**

**MODIFIED WATER DELIVERIES TO**  
**EVERGLADES NATIONAL PARK, FLORIDA**

**Compliance of Each Alternative with Relevant Federal Laws,**  
**Regulations, and Executive Orders**

**Anadromous Fish Conservation Act**

As defined in the Anadromous Fish Conservation Act, 16 U.S.C. 757a-g, 79 Stat. 1125, as amended by PL 89-304, anadromous fish species would not be affected. The project was been coordinated with the National Marine Fisheries Service (NMFS).

**Archeological Resources Protection Act of 1979**

This project complies with the provisions of the Archeological Resources Act of 1979, as amended, 16 USC 470 *et seq.*, P.L. 96-95, relative to archeological resources on public lands.

**Barrier Resources Act and Coastal Barrier Improvement Act of 1990**

There are no designated coastal barrier resources in the project area that would be affected by this project. The project is in compliance.

**Clean Air Act of 1972**

At this stage of planning, this project complies with Section 309 of the Clean Air Act of 1972, as amended, 42 U.S.C. 1857h-7, *et seq.* PL 91-604.

**Clean Water Act of 1972**

The project will comply with the Clean Water Act, as amended, (Federal Water Pollution Control Act) 33 U.S.C. 1251, *et seq.* PL 92-500. A copy of the 404(b)(1) Evaluation is included in Appendix I. In accordance with the laws of the State of Florida, Florida Department of Environmental Protection (FDEP) will not issue a Water Quality Certification (WQC) until advanced plans and specifications for construction are submitted. Once these detailed drawings are developed during the preconstruction engineering and design phase, USACE will seek a modification to the existing WQC for the Modified Water Deliveries (MWD) project. Prior to construction, a National Pollutant Discharge Elimination System (NPDES) permit will be obtained from FDEP, the permitting authority.

### **Coastal Zone Management Act of 1972**

This project is consistent with the Florida Coastal Zone Management Program (see Appendix G) and complies with the Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1451, *et seq.* PL 92-583.

### **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1996**

The Hazardous, Toxic, and Radioactive Waste (HTRW) assessment performed as part of this project complies with the requirements of CERCLA and SARA.

### **Endangered Species Act of 1973**

This project will comply with the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531, *et seq.*; PL 93-205. The U.S. Army Corps of Engineers (USACE) has made a commitment to providing ornithological observers during construction, and to stage construction, such that it does not interrupt nesting activities at the two wood stork rookeries located in close proximity to Tamiami Trail. The U.S. Fish and Wildlife Service (FWS) has informally concurred with the USACE “not likely to adversely affect” determinations for all listed species except the Florida panther (USACE, 2005 RGRR/SEIS). Informal consultation regarding the panther is ongoing.

### **Estuary Protection Act of 1968**

No designated estuary would be affected by project activities. The Estuary Protection Act of 1968, 16 U.S.C. 1221, *et seq.* PL 90-454 is not applicable.

### **Farmland Protection Policy Act of 1981**

No prime or unique farmland would be impacted by implementation of this project. Lands to each side of the highway are publicly owned marshlands. The project is in compliance.

### **Federal Water Project Recreation Act**

This project is in full compliance with the Federal Water Project Recreation Act, as amended, 16 U.S.C 460-1 (12), *et seq.*, P.L. 89-72.

### **Fish and Wildlife Coordination Act of 1958**

This project is currently being coordinated with the USFWS and the U.S. Department of Interior (Everglades National Park).

### **Fishery Conservation and Management Act of 1976**

An Essential Fish Habitat assessment is not required for this project. No adverse effect on fisheries would result from the proposed action. This project has been coordinated with NMFS and complies fully with the Magnuson-Stevens Fishery Conservation Act, as amended in 1996, 16 U.S.C. 1801, *et seq.* PL 04-265.

### **Lands Act of 1953**

This project is in compliance with the State Sovereignty and Submerged Lands program and the Submerged Lands Act of 1953, 43 U.S.C. 1301, *et seq.*

### **Marine Mammal Protection Act of 1972**

The West Indian manatee is not likely to be adversely affected by the project. The project will comply with the provisions of the Marine Mammal Protection Act of 1968, as amended, 16 U.S.C. 1361, *et seq.* PL 92-522.

### **Marine Protection, Research, and Sanctuaries Act**

The Marine Protection, Research and Sanctuaries Act, 33 U.S.C. 1401, *et seq.* PL 92-532 (3[33 U.S.C. 1402](f)) does not apply to this project.

### **Migratory Bird Treaty Act and Migratory Bird Conservation Act**

No migratory birds would be affected by project activities. The project is in compliance with the Migratory Bird Conservation Act, 16 U.S.C. 715-715d, 715e, 715f-715r; 45 Stat. 1222 and the Migratory Bird Treaties and other international agreements listed in the Endangered Species Act of 1973, as amended, Section 2(a)(4).

### **National Environmental Policy Act of 1969**

The project complies with the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321, *et seq.* PL 91-190.

### **National Historic Preservation Act of 1966 (Inter Alia)**

Consultation with the Florida State Historic Preservation Officer (SHPO) has been initiated in accordance with the National Historic Preservation Act, as amended, 16 U.S.C. 470a, *et seq.*; PL 89-655; the Archeological and Historic Preservation Act, as amended, and Executive Order (EO) 11593. A Memorandum of Agreement with SHPO will be signed, and documentation of historic structures and Tamiami Trail and Canal will be completed.

### **Native American Graves Protection and Repatriation Act of 1990**

The project complies with the provisions of the Native American Graves Protection and Repatriation Act, as amended, 25 U.S.C. 3008, *et seq.*, P.L. 101-601.

### **Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984**

The Hazardous, Toxic, and Radioactive Waste (HTRW) assessment performed as part of this project complies with the requirements of RCRA and HSWA..

### **River and Harbor and Flood Control Act of 1970**

The River and Harbor and Flood Control Act of 1970 (P.L. 91-611) places certain requirements on the USACE for evaluating public works projects. This project complies with those requirements.

### **Rivers and Harbors Act of 1899**

This project would not obstruct navigable waters of the United States. The action has been subject to the public notice, public hearing, and other evaluations normally conducted for activities subject to the Rivers and Harbors Act of 1899, as amended, 33 U.S.C. 401, *et seq.* The project is in full compliance.

### **Wild and Scenic River Act of 1968**

No designated Wild and Scenic river reaches would be affected by project related activities.

### **Executive Order 11514, Protection of Environment**

E.O. 11514, Protection and Enhancement of Environmental Quality, directs federal agencies to "*initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals.*" This project complies with E.O. 11514.

### **Executive Order 11988, Flood Plain Management**

This E.O. instructs Federal Agencies to avoid development in flood plains to the maximum extent feasible. The current project is not a "development" but rather a floodplain restoration action. This project is being developed in compliance with E.O. 12898.

### **Executive Order 11990, Protection of Wetlands**

The wetlands of ENP would be enhanced by this project. This project complies with the goals of this executive order.

### **Executive Order 12898, Environmental Justice**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, provides that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority or low-income populations. Efforts were made to avoid, minimize, or compensate for any adverse effect of this project on the Native Americans living in the project area. This project complies fully with the requirements of this executive order.

### **Executive Order 12962, Recreational Fisheries**

Executive Order 12962 requires the evaluation of federally funded, permitted, or authorized actions on aquatic systems and recreational fisheries. This project complies with E.O. 12962.

### **Executive Order 13045, Protection of Children**

Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires each Federal agency to “identify and assess environmental risks and safety risks [that] may disproportionately affect children” and ensure that its “policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.” This project complies with the requirements of E.O. 13045.

### **Executive Order 13089, Coral Reef Protection**

Executive Order 13089, *Coral Reef Protection* requires each Federal agency whose actions affect coral reef ecosystems to “provide for the implementation of measures needed to research, monitor, manage and restore affected ecosystems, including, but not limited to, measures reducing impacts from pollution, sedimentation, and fishing.” This project complies with the requirements of E.O. 13045.

### **Executive Order 13112, Invasive Species**

Executive Order 13112, *Invasive Species*, establishes the National Invasive Species Council to “prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause.” This project complies with the intent of E.O. 13112.



## **Appendix E**

# **ENP PROTECTION AND EXPANSION ACT**

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**PUBLIC LAW 101-229**

**Everglades National Park Protection and Expansion Act of 1989 [Enrolled Bill (Sent to President)]**

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***One Hundred First Congress of the United States of America  
AT THE FIRST SESSION***

Begun and held at the City of Washington on Tuesday, the third day of January, one thousand nine hundred and eighty-nine

An Act

To modify the boundaries of the Everglades National Park and to provide for the protection of lands, waters, and natural resources within the park, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the 'Everglades National Park Protection and Expansion Act of 1989'.

**TITLE I--EVERGLADES NATIONAL PARK EXPANSION**

**SEC. 101. FINDINGS, PURPOSES AND DEFINITION OF TERMS.**

- (a) FINDINGS- The Congress makes the following findings:
- (1) The Everglades National Park is a nationally and internationally significant resource and the park has been adversely affected and continues to be adversely affected by external factors which have altered the ecosystem including the natural hydrologic conditions within the park.
  - (2) The existing boundary of Everglades National Park excludes the contiguous lands and waters of the Northeast Shark River Slough that are vital to long-term protection of the park and restoration of natural hydrologic conditions within the park.
  - (3) Wildlife resources and their associated habitats have been adversely impacted by the alteration of natural hydrologic conditions within the park, which has contributed to an overall decline in fishery resources and a 90 percent population loss of wading birds.
  - (4) Incorporation of the Northeast Shark River Slough and the East Everglades within the park will limit further losses suffered by the park due to habitat destruction outside the present park boundaries and will preserve valuable ecological resources for use and enjoyment by future generations.
  - (5) The State of Florida and certain of its political subdivisions or agencies have indicated a willingness to transfer approximately 35,000 acres of lands under their jurisdiction to the park in order to protect lands and water within the park, and may so transfer additional lands in the future.

- (6) The State of Florida has proposed a joint Federal-State effort to protect Everglades National Park through the acquisition of additional lands.
- (b) PURPOSE- The purposes of this Act are to--
- (1) increase the level of protection of the outstanding natural values of Everglades National Park and to enhance and restore the ecological values, natural hydrologic conditions, and public enjoyment of such area by adding the area commonly known as the Northeast Shark River Slough and the East Everglades to Everglades National Park; and
  - (2) assure that the park is managed in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals, as well as the behavior of native animals, as a part of their ecosystem.
- (c) DEFINITIONS- As used in this Act:
- (1) The term 'Secretary' means the Secretary of the Interior.
  - (2) The term 'addition' means the approximately 107,600 acre area of the East Everglades area authorized to be added to Everglades National Park by this Act.
  - (3) The term 'park' means the area encompassing the existing boundary of Everglades National Park and the addition area described in paragraph (2).
  - (4) The term 'project' means the Central and Southern Florida Project.

## **SEC. 102. BOUNDARY MODIFICATION.**

- (a) AREA INCLUDED- The park boundary is hereby modified to include approximately 107,600 acres as generally depicted on the map entitled 'Boundary Map, Everglades National Park Addition, Dade County, Florida', numbered 160-20,013B and dated September 1989. The map shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.
- (b) BOUNDARY ADJUSTMENT- The Secretary may from time to time make minor revisions in the boundaries of the park in accordance with section 7(c) of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-4 and following). In exercising the boundary adjustment authority the Secretary shall ensure all actions will enhance resource preservation and shall not result in a net loss of acreage from the park.
- (c) ACQUISITION-
- (1) Within the boundaries of the addition described in subsection (a), the Secretary may acquire lands and interests in land by donation, purchase with donated or appropriated funds, or exchange. For purposes of acquiring property by exchange, the Secretary may, notwithstanding any other provision of law, exchange the approximately one acre of Federal land known as 'Gilberts' Marina' for non-Federal land of equal value located within the boundaries of the addition. Any lands or interests in land which are owned by the State of Florida or any political subdivision thereof, may be acquired only by donation.
  - (2) It is the express intent of Congress that acquisition within the boundaries of the addition shall be completed not later than 5 years after the date of enactment of this section. The authority provided by this section shall remain in effect until all acquisition is completed.
- (d) ACQUISITION OF TRACTS PARTIALLY OUTSIDE BOUNDARIES- When any tract of land is only partly within boundaries referred to in subsection (a), the Secretary may acquire all or any portion of the land outside of such boundaries in order to minimize the payment of severance costs. Land so acquired outside of the boundaries may be exchanged by the Secretary for non-Federal lands

- within the boundaries, and any land so acquired and not utilized for exchange shall be reported to the General Services Administration for disposal under the Federal Property and Administrative Services Act of 1949 (63 Stat. 377).
- (e) OFFERS TO SELL- In exercising the authority to acquire property under this Act, the Secretary shall give prompt and careful consideration to any offer made by any person owning property within the boundaries of the addition to sell such property, if such owner notifies the Secretary that the continued ownership of such property is causing, or would result in undue hardship.
- (f) AUTHORIZATION OF APPROPRIATIONS-
- (1) Subject to the provisions of paragraph (2), there are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.
- (2) With respect to land acquisition within the addition, not more than 80 percent of the cost of such acquisition may be provided by the Federal Government. Not less than 20 percent of such cost shall be provided by the State of Florida.
- (g) ASSISTANCE- Upon the request of the Governor of the State of Florida, the Secretary is authorized to provide technical assistance and personnel to assist in the acquisition of lands and waters within the Kissimmee River/Lake Okeechobee/Everglades Hydrologic Basin, including the Big Cypress Swamp, through the provision of Federal land acquisition personnel, practices, and procedures. The State of Florida shall reimburse the Secretary for such assistance in such amounts and at such time as agreed upon by the Secretary and the State. Notwithstanding any other provision of law, reimbursement received by the Secretary for such assistance shall be retained by the Secretary and shall be available without further appropriation for purposes of carrying out any authorized activity of the Secretary within the boundaries of the park.

### **SEC. 103. ADMINISTRATION.**

- (a) IN GENERAL- The Secretary shall administer the areas within the addition in accordance with this Act and other provisions of law applicable to the Everglades National Park, and with the provisions of law generally applicable to units of the national park system, including the Act entitled 'An Act to establish a National Park Service, and for other purposes', approved August 25, 1916 (39 Stat. 535; 16 U.S.C. 1-4). In order to further preserve and protect Everglades National Park, the Secretary shall utilize such other statutory authority as may be available to him for the preservation of wildlife and natural resources as he deems necessary to carry out the purposes of this Act.
- (b) PROTECTION OF ECOSYSTEM- The Secretary shall manage the park in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals, as well as the behavior of native animals, as a part of their ecosystem.
- (c) PROTECTION OF FLORA AND FAUNA- The park shall be closed to the operation of airboats--
- (1) except as provided in subsection (d); and
- (2) except that within a limited capacity and on designated routes within the addition, owners of record of registered airboats in use within the addition as of January 1, 1989, shall be issued nontransferable, nonrenewable permits, for their individual lifetimes, to operate personally-owned airboats for noncommercial use in accordance with rules prescribed by the Secretary to determine ownership

and registration, establish uses, permit conditions, and penalties, and to protect the biological resources of the area.

- (d) CONCESSION CONTRACTS- The Secretary is authorized to negotiate and enter into concession contracts with the owners of commercial airboat and tour facilities in existence on or before January 1, 1989, located within the addition for the provision of such services at their current locations under such rules and conditions as he may deem necessary for the accommodation of visitors and protection of biological resources of the area.
- (e) VISITOR CENTER- The Secretary is authorized and directed to expedite the construction of the visitor center facility at Everglades City, Florida, as described in the Development Concept Plan, Gulf Coast, dated February 1989, and upon construction shall designate the visitor center facility as 'The Marjory Stoneman Douglas Center' in commemoration of the vision and leadership shown by Mrs. Douglas in the protection of the Everglades and Everglades National Park.

#### **SEC. 104. MODIFICATION OF CERTAIN WATER PROJECTS.**

##### **(a) IMPROVED WATER DELIVERIES-**

(1) Upon completion of a final report by the Chief of the Army Corps of Engineers, the Secretary of the Army, in consultation with the Secretary, is authorized and directed to construct modifications to the Central and Southern Florida Project to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrological conditions within the park.

(2) Such modifications shall be based upon the findings of the Secretary's experimental program authorized in section 1302 of the 1984 Supplemental Appropriations Act (97 Stat. 1292) and generally as set forth in a General Design Memorandum to be prepared by the Jacksonville District entitled 'Modified Water Deliveries to Everglades National Park'. The Draft of such Memorandum and the Final Memorandum, as prepared by the Jacksonville District, shall be submitted as promptly as practicable to the Committee on Energy and Natural Resources and the Committee on Environment and Public Works of the United States Senate and the Committee on Interior and Insular Affairs and the Committee on Public Works and Transportation of the United States House of Representatives.

(3) Construction of project modifications authorized in this subsection and flood protection systems authorized in subsections (c) and (d) are justified by the environmental benefits to be derived by the Everglades ecosystem in general and by the park in particular and shall not require further economic justification.

(4) Nothing in this section shall be construed to limit the operation of project facilities to achieve their design objectives, as set forth in the Congressional authorization and any modifications thereof.

##### **(b) DETERMINATION OF ADVERSE EFFECT-**

(1) Upon completion of the Final Memorandum referred to in subsection (a), the Secretary of the Army, in consultation with the South Florida Water Management District, shall make a determination as to whether the residential area within the East Everglades known as the 'Eight and One-Half Square Mile Area' or adjacent agricultural areas, all as generally depicted on the map referred to in subsection 102(a), will be adversely affected by project modifications authorized in subsection (a).

(2) In determining whether adjacent agricultural areas will be adversely affected, the Secretary of the Army shall consider the impact of any flood protection

system proposed to be implemented pursuant to subsection (c) on such agricultural areas.

(c) FLOOD PROTECTION; EIGHT AND ONE-HALF SQUARE MILE AREA- If the Secretary of the Army makes a determination pursuant to subsection (b) that the 'Eight and One-Half Square Mile Area' will be adversely affected, the Secretary of the Army is authorized and directed to construct a flood protection system for that portion of presently developed land within such area.

(d) FLOOD PROTECTION; ADJACENT AGRICULTURAL AREA-

(1) If the Secretary of the Army determines pursuant to subsection (b) that an adjacent agricultural area will be adversely affected, the Secretary of the Army is authorized and directed to construct a flood protection system for such area. Such determination shall be based on a finding by the Secretary of the Army that:

(A) the adverse effect will be attributable solely to a project modification authorized in subsection (a) or to a flood protection system implemented pursuant to subsection (c), or both; and

(B) such modification or flood protection system will result in a substantial reduction in the economic utility of such area based on its present agricultural use.

(2) No project modification authorized in subsection (a) which the Secretary of the Army determines will cause an adverse effect pursuant to subsection (b) shall be made operational until the Secretary of the Army has implemented measures to prevent such adverse effect on the adjacent agricultural area:

*Provided*, That the Secretary of the Army or the South Florida Water Management District may operate the modification to the extent that the Secretary of the Army determines that such operation will not adversely affect the adjacent agricultural area: *Provided further*, That any preventive measure shall be implemented in a manner that presents the least prospect of harm to the natural resources of the park.

(3) Any flood protection system implemented by the Secretary of the Army pursuant to this subsection shall be required only to provide for flood protection for present agricultural uses within such adjacent agricultural area.

(4) The acquisition of land authorized in section 102 shall not be considered a project modification.

(e) PERIODIC REVIEW-

(1) Not later than 18 months after the completion of the project modifications authorized in subsection (a), and periodically thereafter, the Secretary of the Army shall review the determination of adverse effect for adjacent agricultural areas.

(2) In conducting such review, the Secretary of the Army shall consult with all affected parties, including, but not limited to, the Secretary, the South Florida Water Management District and agricultural users within adjacent agricultural areas.

(3) If, on the basis of such review, the Secretary of the Army determines that an adjacent agricultural area has been, or will be adversely affected, the Secretary of the Army is authorized and directed, in accordance with the provisions of subsection (d), to construct a flood protection system for such area: *Provided*, That the provisions of subsection (d)(2) shall be applicable only to the extent that the Secretary, in consultation with the Secretary of the Army, determines that the park will not be adversely affected.

- (4) The provisions of this subsection shall only be applicable if the Secretary of the Army has previously made a determination that such adjacent agricultural area will not be adversely affected.
- (f) **CURRENT CANAL OPERATING LEVELS-** Nothing in this section shall be construed to require or prohibit the Secretary of the Army or the South Florida Water Management District from maintaining the water level within any project canal below the maximum authorized operating level as of the date of enactment of this Act.
- (g) **NO LIMITATION ON OTHER CLAIMS-** If the Secretary of the Army makes a determination of no adverse effect pursuant to subsection (b), such determination shall not be considered as a limitation or prohibition against any available legal remedy which may otherwise be available.
- (h) **COORDINATION-** The Secretary and the Secretary of the Army shall coordinate the construction program authorized under this section and the land acquisition program authorized in section 102 in such a manner as will permit both to proceed concurrently and as will avoid unreasonable interference with property interests prior to the acquisition of such interests by the Secretary under section 102.
- (i) **WEST DADE WELLFIELD-** No Federal license, permit, approval, right-of-way or assistance shall be granted or issued with respect to the West Dade Wellfield (to be located in the Bird Drive Drainage Basin, as identified in the Comprehensive Development Master Plan for Dade County, Florida) until the Secretary, the Governor of the State of Florida, the South Florida Water Management District and Dade County, Florida enter into an agreement providing that the South Florida Water Management District's water use permit for the wellfield, if granted, must include the following limiting conditions: (1) the wellfield's peak pumpage rate shall not exceed 140,000,000 gallons per day; (2) the permit shall include reasonable, enforceable measures to limit demand on the wellfield in times of water shortage; and (3) if, during times of water shortage, the District fails to limit demand on the wellfield pursuant to (2), or if the District limits demand on the wellfield pursuant to (2), but the Secretary certifies that operation of the wellfield is still causing significant adverse impacts on the resources of the Park, the Governor shall require the South Florida Water Management District to take necessary actions to alleviate the adverse impact, including, but not limited to, temporary reductions in the pumpage from the wellfield.
- (j) **PROTECTION OF NATURAL VALUES-** The Secretary of the Army is directed in analysis, design and engineering associated with the development of a general design memorandum for works and operations in the 'C-111 basin' area of the East Everglades, to take all measures which are feasible and consistent with the purposes of the project to protect natural values associated with Everglades National Park. Upon completion of a general design memorandum for the area, the Secretary shall prepare and transmit a report to the Committee on Energy and Natural Resources and the Committee on Environment and Public Works of the United States Senate and the Committee on Interior and Insular Affairs and the Committee on Public Works and Transportation of the United States House of Representatives on the status of the natural resources of the C-111 basin and functionally related lands.